

The Construction (Design & Management) Regulations. Tool or Toil?

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**A personal view of the current perceptions, drawbacks and successes that are
attached to the CDM Regulations in the UK offshore wind industry.**

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Introduction

CDM is not the most popular subject in the industry – it is perceived by some as a risk to successful project implementation - overly bureaucratic, cumbersome and itself demanding excessive levels of paperwork. The backdrop of legal responsibility on companies and individuals on safety matters, coupled with what is early days in the industry, also fuels apprehension.

Therefore the question – is CDM solely all toil, or is there some way these health & safety requirements can be complied effectively but with benefit being derived. That is which will result in accidents being reduced without compromising the projects successful conclusion?

It is important to understand the origin of these regulations and where they are placed in the bigger picture for health and safety management and to record specific offshore wind farm experiences to assist in finding the route forward.

Context

Whatever we do, however we act towards safety should be in proportion to the level of risk. It is therefore necessary to start with what we believe to be appropriate. In a safety context I believe the following are the key points:-

- The recognition and understanding of our moral & legal duties.
- Ensuring that people are not harmed in the execution of our business.
- Clearly defining the level of the hazard we are engaging – we are not “high hazard”
- Encourage only appropriate and effective legislation & practise – do not allow encumbrances such as excessive paperwork, misplaced legislation and unnecessary bureaucracy.

CDM can be toil if it is allowed to be i.e. by lack of management, fuzzy thinking and lack of time to identify the real risks. It can be toil for those inexperienced in UK health & safety law and associated cultures. It is however quite a powerful tool if recognised, integrated into the project execution framework and effectively controlled.

In a European / UK context:- CDM is a result of the UK HSEs interpretation of EU Directive 92/57 – “Temporary Work Sites” The EU Directive was enabled directly from the '89 “Framework Directive”. Other EEC countries have complimentary acts, decrees, conditions etc. either embedded within labour laws or as stand-alone pieces of legislation.

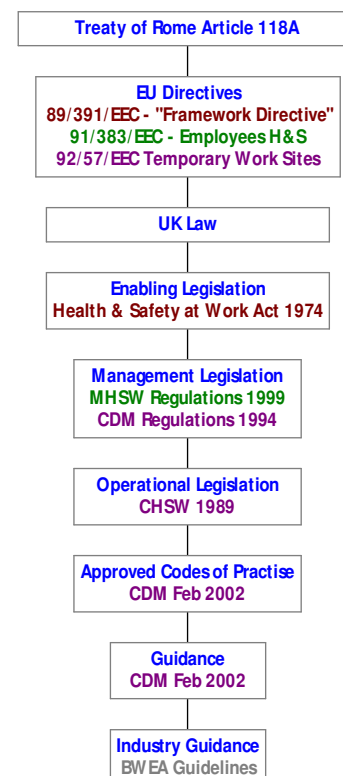
The diagram at right shows the hierarchy related to our industry.

Several major companies trading throughout Europe recognise the UK protocols under Directive 92/57 (CDM) as a representative standard to satisfy all member requirements, albeit using differing terminology. Several major companies adopt UK CDM as European Management Practise.

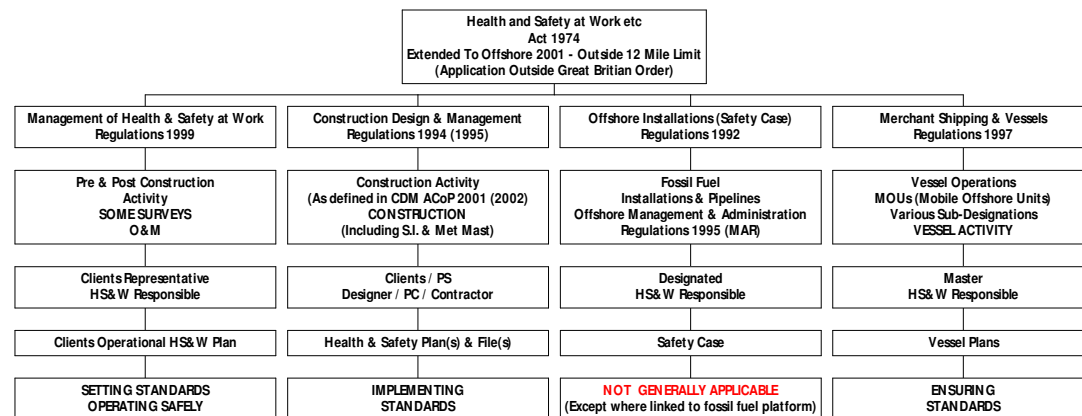
In the UK, the key references to get a good preliminary understanding are:-

1 - The CDM Approved Code of Practise – February 2002.

2 - The BWEA Guidelines for Health & Safety in the Wind Energy Industry – April 2005.



Onshore / Offshore context is also important to clearly understand. The chart below tracks the main lines out from the UK foundation legislation – The Health & Safety at Work etc Act 1974.

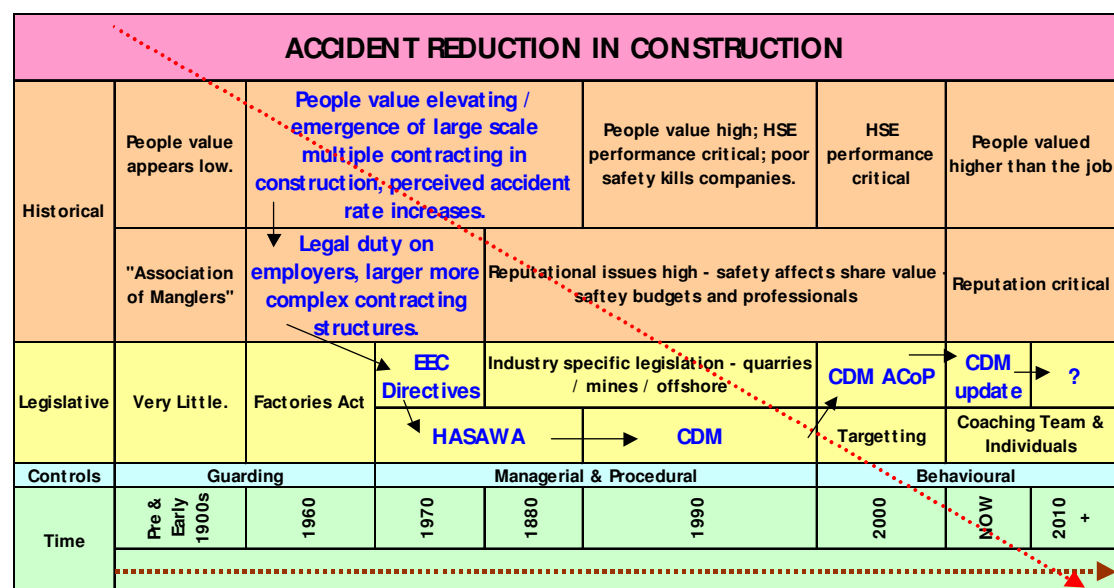


CDM specifically applies to construction activity – in our case specifically to the installation of offshore wind farms and associated infrastructure. This specifically includes:-

- Design work.
- Site investigation.
- Installation of meteorological mast.
- All construction activity.

Offshore safety case legislation does not apply except where the wind farm provides power for, or is mounted on structure falling under offshore safety case – associated with fossil fuel production / processing.

The historical context opens up understanding of the need for CDM. The following diagram endeavours to track socio-historical transitions against legislative implementation, collective control frameworks, the gestation and evolution of CDM and accident the reduction trend with time.



During the 60's, the number of fatalities and major accidents in construction in the UK was perceived as rising at a serious rate. European framework directives were established as a means of placing responsibilities on employers to protect their employees and make the place

of work, and work activity safe. In the UK resultant foundation legislation was issued in 1974 – The Health & Safety at Work etc Act.

Whilst providing a foundation, fatalities and major accidents still continued in construction activity at an unacceptable rate. The decline of traditional companies with their own employees and the rise of multiple sub-contracts individually responsible on one project, coupled with more complex projects and contracting strategies, led to the conclusion that managerial and procedural deficiencies contributed significantly to these accident statistics. Therefore the need to legislate and hence the birth of the CDM Regulations. That is the transition from no overall control, to a coordinated safety process, project by project.

CDM came into force in the UK in 1994 (1995 in Northern Ireland). It was not launched as the whole answer to accident reduction, but was perceived as a step in the right direction - that is much as with other initiatives at the time such as whole life costing, increased prefabrication, etc.

Since promulgation some scepticism has existed over the effectiveness of CDM to aid the safety cause, which has led to much debate and improvement in endeavour to improve effectiveness stands with the Approved Code of Practice issued in 2002. An update to the Regulations is expected in 2006.

The rate of fatalities and accidents has reduced over time & the evolution of processes driving those reductions has progressed from simple guarding of machinery, subsequent machine codes and national standards, through managerial and procedural controls into recent and current strives for behavioural change.

One further major driver is company reputation. History shows that major accidents can end a companies life – some notable examples are Union Carbide – Bhopal, Pan Am – Lockerbie, Thoresen Townsend – Herald of Free Enterprise, and of course Chernobyl to the nuclear industry. Our business is not as high profile as some of these, but we do have a risk of multiple fatality, significant loss of equipment and serious environmental damage.

From now until 2010 and beyond – the question is how far can we drive accidents down? How much will be driven by legislation and how much by improvement in individual and collective safe behaviours?

Outline of The Construction (Design & Management) Regulations 1994 – (CDM)

It is not the purpose of this paper to lay out the requirements of the regulations. The reader is referred to the ACoP for this purpose.

A table is provided at right listing the defined duty holders, their main responsibilities and defined specific deliverables.

Essentially the key requirements of the regulations are as follows: -

- Systematic management of construction project hazards.
- A realistic programme of work.
- Early appointments of key people.
- Competences and adequate resources.
- Early ID and reduction of risks.
- HSE Information.
- Cooperation & Communication
- Input proportional to the risk.

Duty Holder	Main Responsibilities	Normal Deliverables
Client / Clients Agent	Timely appointments of competent people.	Information
	Allow time & control work start.	Surveys
	Guardian of Health & Safety File	
Planning Supervisor	Advise the Client	Pre-Tender H&S Plan
	Ensure Designers comply, cooperate & coordinate.	
	Ensure HSE are informed.	HSE Notification
	Ensure PTHSP is prepared.	
Designer	Ensure Health & Safety File is prepared.	Design Risk Assessments
	Make Clients aware of their duties.	
	Prepare designs with adequate regard to health & safety, and information provided by the client.	Information for the Health & Safety File.
	Provide adequate health & safety information in, or with the design.	
	Cooperate with the Planning Supervisor and other Designers.	
Principal Contractor	Assess competence and resources.	Construction Stage H&S Plan
	Implement / manage the CSHSP & site.	
	Promote cooperation & consultation.	Health & Safety File Information
	Inform Contractors and Self-Employed	
Contractor	Encourage advise giving on H&S matters	Method Statements
	Ensure appropriate training is given / received.	
	Assess competence and resources.	Risk Assessments
	Cooperate with the Principle Contractor.	
	Provide information and comply with rules.	
	Report accidents and dangerous occurrences.	Risk Assessments
	Provide information and training to employees.	

The main point is that these are mandatory, they must be done – as a minimum, and we must be prepared to demonstrate that the responsibilities have been fulfilled and that the deliverables have been delivered. It is significant that the list of responsibilities is greater than the paperwork deliverables!

CDM finishes on a project when the construction work is complete and the Health & Safety File has been handed to the Client – i.e. the asset is complete.

Drawbacks

CDM is not without problems and probably the thickness of the ACoP document is enough to put off all but the most ardent safety purist - but in fact its quite a readable document with a clear structure. Some notable points in our industry

Perceptions of CDM vary from them being a set of rules put in place to catch out the unwary individual and slap him, or her, in irons, right through to them being the best set of principles laid out by a forward thinking Health & Safety Executive for a long time.

Although derived from European directives, old hands at the UK government HSE claim credit for instigating the CDM approach at European level – inevitably, given this claim, I believe they carry a UK cultural bias.

“Safety Business UK”, unfortunately at the less scrupulous level, prospers on a degree of scaremongering – scare the people into believing they will go to prison - and then sell the insurance policy.

The disciplines are implemented – usually too late – not in time to capture the best opportunities such as influencing design, or to incorporate clients aspirations and expectations. This is a big waste in the early stage of a project. The mechanics are there to lay out how the project will behave and deliver in safety terms – it's a very powerful tool that must be used effectively.

The regulations in their own right are perceived as a risk. All risks associated with our business can be quantified; they just require the assessor to gain the appropriate knowledge.

If you want paperwork - you'll get paperwork and tons of it – even without asking. The art is continual “push-back” if this happens. Meetings and forums can be effectively utilised to keep the paperwork and the bureaucracy in proportion.

CDM is only part of the safety process – so CDM cannot be directly branded as accident reducing.

Successes

Establishing client's health & safety aspirations & targets by robust Pre-Tender documents, and holding stage-by-stage HSE forums is proven conclusively to get engagement from the initial stages. Specific safety targets and indeed penalties can be incorporated contractually, mitigating reputation risk.

Stage-by-stage forums have also proved invaluable in obtaining consensus and sign-off to methodology. It encourages ownership and gets the data disseminated throughout the project.

Focus at early stages on design aspects via design workshops & a design risk assessment forum enables coordination and good record keeping of design decisions.

Empowering (confirming authority and enabling leadership) the Principle Contractor to manage the site and all project participants at construction stage, implementing project wide standards and rules is a major contribution to comprehensive safety management throughout

a project. The Principle Contractor needs the power to manage with full legal support - CDM gives him just that!

The provision of closeout documentation in a timely manner is a mandatory requirement. This includes operation & maintenance manuals and the Health & Safety File – these are project assets in their own right.

Moving Forward

Due to insufficient lack of understanding and problems in implementing the CDM Regulations, a detailed ACoP was published which came into force in early 2002. This gave guidance on assessing competence & resources and directions on how to prepare safety plans and files.

Industry practise is moving on at a pace, the BWEA is doing some excellent work in trying to get common standards out to the industry, notably in the H&S guidelines document – again something for everyone's bookshelf – downloadable of the BWEA web-site

The regulations are undergoing review; a consultative document is available on the HSE web site. We expect new regulations to be issued in mid 2006. Apart from some name changes, we expect to be further encouraged to reduce paperwork, but to deal more effectively with mechanical and electrical aspects in the Health & Safety File.

As the offshore wind industry matures, plans and practises are becoming more robust, we are now incorporating lessons learnt, building on experience and gaining from information sharing. Behavioural change initiatives at client level are beginning to come through as requirements and penalties in contracts for poor health and safety performance are becoming more frequent.

Conclusion

We don't want to hurt people in our business activities - and we know poor management causes harm. Therefore procedural management in health and safety is necessary, but is only part of the H&S armoury we have.

CDM is a legal duty and must be complied with, so we should use it as a tool, it does work, we should engage with it, and make it work for us.

There have been some drawbacks, but also many notable successes. It can be demonstrated that our safety record is improving – and that CDM has helped.

We are heading for a period of further change in legislation and other accident reduction initiatives, and must be prepared to respond appropriately.